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10/583,261

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Arne Simonsson

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NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER

BALAOING, ARIEL A

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|-----------------------------------------|--|
| Office Action Summary | Application No. 10/583,261 | Applicant(s) SIMONSSON ET AL. | |
| | Examiner ARIEL BALAOING | Art Unit 2617 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 36,39,41-53,55-60 and 64-71 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 36,39,41-53,55-60 and 64-71 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>02/22/2010 05/05/2010 06/16/2010</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The information disclosure statement filed 06/16/2010 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the submitted Japanese Office Action does not include an English translation. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

Response to Arguments

2. Applicant's arguments filed 05/05/2010 have been fully considered but they are not persuasive.

Regarding claim 36, the applicant argues:

"The office action properly concedes that U.S. Publication 2002/0039892 to Lindell does not expressly teach determining a utilization factor for at least one node. Indeed, as explained below, Lindell is preoccupied with selecting an access network based first on service requirements and then on personal preferences, but does not take into consideration a utilization factor on a per node basis.

Lindell ¶3 mentions monitoring of "current traffic load" for determining current radio link conditions. This indicates that Lindell not take into account the load of a

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specific node as claimed, but instead the cell load that the UE experiences from all the traffic in the cell. Thus Lindell does not disclose a method that takes account both radio quality expressed in estimated bitrate and the load on a per node basis, but only considers the radio perspective and not the load on the node per se" (see page 2 and 3 of the remarks); the examiner respectfully disagrees.

As written, claim 36 recites "*determining, in said terminal, for each access selection and the respective access network therefor, a utilization factor for at least one node*" on line 9 and 10 of the claim. The traffic load of Lindell (see for example paragraph 35) is seen as a utilization factor for at least one node (i.e. one or all nodes of the network) and therefore Lindell anticipates the limitation as claimed.

3. Furthermore, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., estimation of bit rate and the load on a per node basis) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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5. Claims 36, 39, 41-45, 48-53, 55-60, 64-71 are rejected under 35 U.S.C. 103(a) as being unpatentable over LINDELL (US 2002/0039892) in view of VADGAMA (US 2003/0083069 A1).

Regarding claim 36, LINDELL discloses a method of selecting an access network among multiple access networks [**AN1-ANn**] capable of providing service to a mobile communication terminal **100** (abstract; selecting an access network and a service), the method comprising: determining, in said terminal, for each of a plurality of available access selections including access selections to differing ones of the multiple access networks, a radio quality from the terminal to the respective access network (paragraph 7, 31, 32; link conditions and signal qualities), estimating a radio link bitrate u for each access, based on the determined radio quality q according to $u=g(q)$, wherein g is an access specific function (paragraph 30, 31, 33; bit rate and quality of service/signal used to chose access network), determining, in said terminal, for each access selection and the respective access network therefor, a utilization factor p (paragraph 7, 30, 31, 34; monitoring of current traffic loads), determining, in said terminal, for each access selection and the respective access network therefor, a user perceived data quality, based on said utilization factor and the estimated radio link bitrate for the respective access network (paragraph 32-35; network and service selection based on user preferences and various measurements provide to the processing unit of the mobile terminal), selecting, in said terminal at least one of said multiple access networks, based on the determined user perceived quality (abstract; paragraphs 13, 14, 30, 31; network and service selection based on user preferences and various measurements

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provide to the processing unit of the mobile terminal). However, LINDELL does not expressly disclose determining a utilization factor for at least one node. In a similar field of endeavor, VADGAMA discloses determining for each of a plurality of access selections a radio quality [**signal quality**] from the terminal to each access network, determining, for each access selection and for each access network, a utilization factor [**congestion/load**] for at least one node [**base station/cell**], determining, for each access selection and for each access network, a user perceived data quality [**threshold/selection**], based on said determined utilization factor and said determined radio quality for the access network, and selecting at least one of said access networks, based on the determined user perceived quality (paragraph 16-20, 24-29, 48-52, 83, 87-92; base station selection based on measured congestion and signal quality).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify LINDELL to include the teachings of VADGAMA, since such a modification would provide monitoring of a specific node of a selected network when network selection is requested. Furthermore, VADGAMA discloses monitoring of traffic loads from each of the access networks and therefore, LINDELL would provide additional traffic monitoring based on nodes of a selected network. The combination of LINDELL and VADGAMA does not expressly disclose wherein a user perceived data quality is according to $Q=u*f(p)$. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use this equation and variables, since it has been held that discovering an optimum value of a

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result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 39, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of LINDELL and VADGAMA further discloses wherein the radio link quality q is represented by at least any one of pilot signal strength, beacon signal strength, E_c/N_0 , SIR, C/I, bit error rate, block error rate, and packet error rate (LINDELL – paragraph 7, 31; VADGAMA - paragraph 21, 104). Furthermore, see the parent claim regarding the motivation for combining of references.

Regarding claim 41, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, the combination of LINDELL and VADGAMA does not expressly disclose determining the user perceived quality according to: $Q_{sub.u} = \mu \cdot (1 - \rho)$ where μ represents the radio link bitrate, and ρ represents the utilization factor for the access. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use this equation and variables, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 42, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, the combination of LINDELL and VADGAMA does not expressly disclose wherein μ is constant. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use

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this equation and variables, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 43, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, the combination of LINDELL and VADGAMA does not expressly disclose wherein ρ is constant. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use this equation and variables, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 44, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. LINDELL further discloses wherein a function is specific for each type of access network (paragraph 14, 30,31; disclosure details GSM and WCDMA that provide differing bit rates and frame error rates corresponding to the specific network).

Regarding claim 45, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of LINDELL and VADGAMA further discloses further comprising representing said user perceived quality with a data bit rate for the access network (LINDELL – paragraph 30, 31; data rates of specific networks; VADGAMA - paragraph 21, 87-91, 104; bit error rate or bit rate, signal to interference ratio). Furthermore, see the parent claim regarding the motivation for combining of references.

Regarding claim 48, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, the combination of LINDELL and VADGAMA does not expressly disclose wherein ρ is estimated by the expression: $\rho = 1 - P_{CCH} / P_{TOT}$, where P_{CCH} is the common power, and P_{TOT} is the total power. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use this equation and variables, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 49, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, the combination of LINDELL and VADGAMA does not expressly disclose wherein P_{CCH} is estimated from the received pilot power and a factor F_{CCH} that compensates for the other common channels, and P_{TOT} is estimated from the received wideband signal strength. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use this equation and variables, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 50, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of LINDELL and VADGAMA further discloses determining the utilization by measuring at least a received pilot power and a total power from a received wideband signal strength, whereby the utilization is

estimated (VADGAMA - paragraph 21, 23, 24). Furthermore, see the parent claim regarding the motivation for combining of references.

Regarding claim 51, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. LINDELL further discloses further comprising selecting the at least one access network before the terminal is connected to an access network (paragraph 12, 13; access network requested before connection is established).

Regarding claim 52, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. LINDELL further discloses wherein said multiple access networks utilize the same type of radio access technology (paragraph 5-7, 12, 13; access networks can comprises and of the described access types with a determination based on various detected availability).

Regarding claim 53, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. LINDELL further discloses wherein access networks utilize different types of radio access technologies (paragraph 5-7, 12, 13; access networks can comprises and of the described access types with a determination based on various detected availability).

Regarding claim 55, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. LINDELL further discloses wherein access networks belong to different networks (Figure 1; AN1-ANn).

Regarding claim 56, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. LINDELL further discloses wherein said multiple

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access network belong to the same operator (paragraph 7, 8; access selection based on contract or subscription restriction suggest determination of access network based on the same or different operator).

Regarding claim 57, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. LINDELL further discloses wherein access networks belong to different operators (paragraph 7, 8; access selection based on contract or subscription restriction suggest determination of access network based on the same or different operator).

Regarding claim 58, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. LINDELL further discloses wherein the multiple access networks include at least one of WCDMA, CDMA2000, GSM, WLAN or GPRS (paragraph 5, 34; WCDMA and GSM).

Regarding claim 59, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of LINDELL and VADGAMA further discloses wherein said node comprises at least one of an access point, and base station (LINDELL – paragraph 13; an access point or base station of some form is inherently necessary to provide wireless communication; VADGAMA - paragraph 16-20, 24-26; Base stations). Furthermore, see the parent claim regarding the motivation for combining of references.

Regarding claim 60, LINDELL discloses a system enabling selection of an access network among multiple access networks [AN1-ANn] capable of providing service to a mobile communication terminal **100** (abstract; selecting an access network

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and a service), the system comprising: means for determining, in said terminal, for each of a plurality of available access selections including access selections to differing ones of the multiple access networks, a radio quality from the terminal to the respective access network (paragraph 7, 31, 32; link conditions and signal qualities), means for estimating a radio link bitrate u for each access, based on the determined radio quality q according to $u=g(q)$, wherein g is an access specific function (paragraph 30, 31, 33; bit rate and quality of service/signal used to chose access network), means for determining, in said terminal, for each access selection and the respective access network therefor, a utilization factor p (paragraph 7, 30, 31, 34; monitoring of current traffic loads), means for determining, in said terminal, for each access selection and the respective access network therefor, a user perceived data quality, based on said utilization factor and the estimated radio link bitrate for the respective access network (paragraph 32-35; network and service selection based on user preferences and various measurements provide to the processing unit of the mobile terminal), means for selecting, in said terminal at least one of said multiple access networks, based on the determined user perceived quality (abstract; paragraphs 13, 14, 30, 31; network and service selection based on user preferences and various measurements provide to the processing unit of the mobile terminal). However, LINDELL does not expressly disclose determining a utilization factor for at least one node. In a similar field of endeavor, VADGAMA discloses determining for each of a plurality of access selections a radio quality [**signal quality**] from the terminal to each access network, determining, for each access selection and for each access network, a utilization factor [**congestion/load**] for

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at least one node [**base station/cell**], determining, for each access selection and for each access network, a user perceived data quality [**threshold/selection**], based on said determined utilization factor and said determined radio quality for the access network, and selecting at least one of said access networks, based on the determined user perceived quality (paragraph 16-20, 24-29, 48-52, 83, 87-92; base station selection based on measured congestion and signal quality). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify LINDELL to include the teachings of VADGAMA, since such a modification would provide monitoring of a specific node of a selected network when network selection is requested. Furthermore, VADGAMA discloses monitoring of traffic loads from each of the access networks and therefore, LINDELL would provide additional traffic monitoring based on nodes of a selected network. The combination of LINDELL and VADGAMA does not expressly disclose wherein a user perceived data quality is according to $Q = u * f(p)$. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use this equation and variables, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 64, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, the combination of LINDELL and VADGAMA does not expressly disclose determining the user perceived quality according to: $u = \mu * (1 - \rho)$. It would have been obvious to one having ordinary skill

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in the art at the time the invention was made to use this equation and variables, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 65, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, the combination of LINDELL and VADGAMA does not expressly disclose wherein ρ is estimated by the expression: $\rho = 1 - P_{CCH} / P_{TOT}$, where P_{CCH} is the common power, and P_{TOT} is the total power. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use this equation and variables, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 66, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, the combination of LINDELL and VADGAMA does not expressly disclose wherein P_{CCH} is estimated from the received pilot power and a factor F_{CCH} that compensates for the other common channels, and P_{TOT} is estimated from the received wideband signal strength. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use this equation and variables, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 67, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of LINDELL and VADGAMA

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further discloses determining the utilization by measuring at least a received pilot power and a total power from a received wideband signal strength, whereby the utilization is estimated (VADGAMA - paragraph 21, 23, 24). Furthermore, see the parent claim regarding the motivation for combining of references.

Regarding claim 68, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of LINDELL and VADGAMA further discloses wherein said radio quality determining means are further configured to estimate μ based on at least one of pilot signal strength, beacon signal strength, E_b/N_0 , SIR, and C/I (VADGAMA - paragraph 21, 104). Furthermore, see the parent claim regarding the motivation for combining of references.

Regarding claim 69, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of LINDELL and VADGAMA further discloses wherein said node comprises at least one of an access point, and base station (LINDELL – paragraph 13; an access point or base station of some form is inherently necessary to provide wireless communication; VADGAMA - paragraph 16-20, 24-26; Base stations). Furthermore, see the parent claim regarding the motivation for combining of references.

Regarding claim 70, LINDELL discloses a mobile communication terminal **100** capable of receiving service from multiple access networks [**AN1-ANn**] (abstract; selecting an access network and a service), comprising: means for determining, in said terminal, for each of a plurality of available access selections including access selections to differing ones of the multiple access networks, a radio quality from the

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terminal to the respective access network (paragraph 7, 31, 32; link conditions and signal qualities), means for estimating a radio link bitrate u for each access, based on the determined radio quality q according to $u=g(q)$, wherein g is an access specific function (paragraph 30, 31, 33; bit rate and quality of service/signal used to chose access network), means for determining, in said terminal, for each access selection and the respective access network therefor, a utilization factor p (paragraph 7, 30, 31, 34; monitoring of current traffic loads), means for determining, in said terminal, for each access selection and the respective access network therefor, a user perceived data quality, based on said utilization factor and the estimated radio link bitrate for the respective access network (paragraph 32-35; network and service selection based on user preferences and various measurements provide to the processing unit of the mobile terminal), means for selecting, in said terminal at least one of said multiple access networks, based on the determined user perceived quality (abstract; paragraphs 13, 14, 30, 31; network and service selection based on user preferences and various measurements provide to the processing unit of the mobile terminal). However, LINDELL does not expressly disclose determining a utilization factor for at least one node. In a similar field of endeavor, VADGAMA discloses determining for each of a plurality of access selections a radio quality [**signal quality**] from the terminal to each access network, determining, for each access selection and for each access network, a utilization factor [**congestion/load**] for at least one node [**base station/cell**], determining, for each access selection and for each access network, a user perceived data quality [**threshold/selection**], based on said determined utilization factor and said

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determined radio quality for the access network, and selecting at least one of said access networks, based on the determined user perceived quality (paragraph 16-20, 24-29, 48-52, 83, 87-92; base station selection based on measured congestion and signal quality). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify LINDELL to include the teachings of VADGAMA, since such a modification would provide monitoring of a specific node of a selected network when network selection is requested. Furthermore, VADGAMA discloses monitoring of traffic loads from each of the access networks and therefore, LINDELL would provide additional traffic monitoring based on nodes of a selected network. The combination of LINDELL and VADGAMA does not expressly disclose wherein a user perceived data quality is according to $Q=u*f(p)$. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use this equation and variables, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 71, LINDELL discloses a system enabling selection of an access network among multiple access networks [**AN1-ANn**] capable of providing service to a mobile communication terminal **100** (abstract; selecting an access network and a service), the system comprising: a first unit configured to determine, for each of a plurality of available access selections including access selections to differing ones of the multiple access networks, a radio quality from the terminal to the respective access network (paragraph 7, 31, 32; link conditions and signal qualities), the first unit being

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further configured to estimate a radio link bitrate u for each access, based on the determined radio quality q according to $u=g(q)$, wherein g is an access specific function (paragraph 30, 31, 33; bit rate and quality of service/signal used to chose access network), a second unit configured to determine, for each access selection and the respective access network therefor, a utilization factor p (paragraph 7, 30, 31, 34; monitoring of current traffic loads), a third unit configured to determine, for each access selection and the respective access network therefor, a user perceived data quality, based on said utilization factor and the estimated radio link bitrate for the respective access network (paragraph 32-35; network and service selection based on user preferences and various measurements provide to the processing unit of the mobile terminal), a selector unit configured to select at least one of said multiple access networks, based on the determined user perceived quality (abstract; paragraphs 13, 14, 30, 31; network and service selection based on user preferences and various measurements provide to the processing unit of the mobile terminal). However, LINDELL does not expressly disclose determining a utilization factor for at least one node. In a similar field of endeavor, VADGAMA discloses determining for each of a plurality of access selections a radio quality [**signal quality**] from the terminal to each access network, determining, for each access selection and for each access network, a utilization factor [**congestion/load**] for at least one node [**base station/cell**], determining, for each access selection and for each access network, a user perceived data quality [**threshold/selection**], based on said determined utilization factor and said determined radio quality for the access network, and selecting at least one of said

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access networks, based on the determined user perceived quality (paragraph 16-20, 24-29, 48-52, 83, 87-92; base station selection based on measured congestion and signal quality). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify LINDELL to include the teachings of VADGAMA, since such a modification would provide monitoring of a specific node of a selected network when network selection is requested. Furthermore, VADGAMA discloses monitoring of traffic loads from each of the access networks and therefore, LINDELL would provide additional traffic monitoring based on nodes of a selected network. The combination of LINDELL and VADGAMA does not expressly disclose wherein a user perceived data quality is according to $Q=u*f(p)$. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use this equation and variables, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

6. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over LINDELL (US 2002/0039892) in view of VADGAMA (US 2003/0083069 A1) and further in view of TENNISON et al (US 2002/0046292).

Regarding claim 46, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, the combination of LINDELL and VADGAMA does not expressly disclose further comprising representing said user perceived quality with an active session data throughput for the access network. In a similar field of endeavor, TENNISON discloses representing a user perceived quality

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with an active session data throughput for an access network (paragraph 19).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of LINDELL and VADGAMA to include the teachings of TENNISON, since such a modification could be used to determine a network selection based on specified and configurable rules.

7. Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over LINDELL (US 2002/0039892) in view of VADGAMA (US 2003/0083069 A1) and further in view of ABRAHAM et al (US 2003/0156580 A1).

Regarding claim 47, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, the combination of LINDELL and VADGAMA does not expressly disclose wherein said data bitrate comprises an estimated Session Circuit Switched Equivalent (CSE) bitrate. ABRAHAM discloses wherein a data bitrate comprises an estimated Session Circuit Switched Equivalent (CSE) [maximum bearer rate] bitrate (paragraph 31, 39). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of LINDELL and VADGAMA to include the teachings of ABRAHAM, since the use of a maximum bearer rate allows various class of services to be established based on priority and device capabilities.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ARIEL BALAOING whose telephone number is (571)272-7317. The examiner can normally be reached on Monday-Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, V. Paul Harper can be reached on (571) 272-7605. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VINCENT P. HARPER/
Supervisory Patent Examiner, Art Unit 2617

/Ariel Balaoing/
Examiner, Art Unit 2617

/A. B./
Examiner, Art Unit 2617